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SCHOOL OF HYGIENE

UNIVERSITY OF TORONTO

Diploma Courses for University Graduates

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Diploma in Dental Public Health (D.D.P.H.)
Diploma in Hospital Administration (Dip.H.A.)
Diploma in Bacteriology (Dip. Bact.)
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Graduates with degrees in arts or science may enrol in the Dip.H.A., Dip. Bact., Dip. Nutrit., or C.P.H. courses. The C.P.H. may be taken as a general course in public health administration, or with specialized work in certain public health subjects.

DURATION OF COURSES

All courses are of 32 weeks' duration, except the Dip.H.A. course which extends over two years, the second year being spent as a resident in hospital administration. Courses commence in early September of each year.

BURSARY ASSISTANCE AND FELLOWSHIPS

Bursary assistance may be available to candidates approved by Provincial Departments of Health. Overseas candidates should consult their government about Fellowships.

FOR FURTHER INFORMATION write to: Dr. A. J. Rhodes,
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PUBLIC HEALTH

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Water Fluoridation in Manitoba[1]

L. A. KAY[2]

IN the Province of Manitoba about half of the population is served with water artificially fluoridated to a level of one part per million.

COMMUNITIES WHICH FLUORIDATE PUBLIC WATER SUPPLIES

Community		Approximate Population
City of Brandon		24,800
Town of Boissevain		1,100
City of Portage la Prairie		10,500
Town of Dauphin		6,200
Greater Winnipeg Municipalities:		
City of Winnipeg		255,000
City of St. James		26,500
City of St. Boniface		28,800
City of East Kildonan		18,700
Town of Tuxedo		1,100
Town of Transcona		8,300
Village of Brooklands		3,900
R.M. of Fort Garry		13,600
R.M. of St. Vital		23,600
R.M. of West Kildonan		15,200
R.M. of Old Kildonan		1,100
Part of:		
R.M. of North Kildonan	4,400	
R.M. of Assiniboia	3,500	
R.M. of Charleswood	4,900	
(approximately one quarter)	12,800	3,200
		441,600

[1]From a report to the Annual Institute for Sanitary Inspectors conducted jointly by the University of Manitoba and the Department of Health and Public Welfare under Federal Health Grant.

[2]Director, Environmental Sanitation Division, Department of Health and Public Welfare 320 Sherbrook St., Winnipeg 2, Manitoba.

In addition, the towns of Minnedosa and Steinbach have secured approval for installations.

Chemicals and Equipment

Sodium fluoride appears to be the first choice for the smaller community due to its high solubility. Sodium silicofluoride is the favoured material for larger installations and on a cost comparison basis.

In the smaller centers chemical solution feeders calibrated volumetrically predominate. The amount of material used is relatively small and there is no great difficulty in predetermining the make-up of batch or mother solutions which can then be fed to the bulk water by a mechanical chemical solution pump.

In the intermediate range volumetric dry feeders are used; the system also involves a dissolving tank of adequate capacity. For the Greater Winnipeg Water District the chemical is administered at the intake at Indian Bay utilizing a gravimetric metering device.

The pertinent characteristics of the two chemical compounds used in the province are:

	Strength %	Fluorine Content %	Solubility %	Physical Form
Sodium Fluoride	97	44	4.0	Powder
Sodium Silicofluoride	98	59	0.65	Powder

Note: As there are some variations in different batches it is particularly important that the strength and fluorine content be verified from the supplier.

Standards

Although there may be various competent opinions as to the optimum dosage in terms of fluorine the Manitoba Department of Health and Public Welfare has subscribed to a figure of 1.00 parts per million total fluorine (including any natural fluoride content).

It is felt that any equipment for adding the chemical should be accurate within plus or minus five per cent and on a monthly basis the average dosage should not vary more than five per cent either way from the optimum of 1.00 parts per million.

Control

It is required that tests be carried out at the point of application daily and a report submitted to the Department once a month. In addition, confirmatory tests are carried out under the supervision of the chemist in charge of the Industrial Hygiene laboratories. A review of typical results for two installations follows.

CITY OF BRANDON

	Brandon Water Treatment Plant	Brandon Local Health Unit	Industrial Hygiene Laboratory
Method	Aquatester	Aquatester	Spectrophotometric
Number of Samples	187	107	51
Average Result	0.96 ppm (F)	1.04 ppm (F)	1.06 ppm (F)

GREATER WINNIPEG WATER DISTRICT

	Water District Intake Plant	Industrial Hygiene Laboratory
Method	Aquatester	Aquatester
Number of Samples	351	222
Average Result	1.04 ppm (F)	1.00 ppm (F)

Basic Requirements

It is felt that there are three basic requirements which must be considered:

Medical— the dosage prescribed should be such that medical opinion is certain that there can be no adverse systemic effect on the human body.

Dental— the optimum dosage may vary in different climatic areas but in any event requires the approval of dental authorities.

Technical—once the optimum dosage is set, careful supervision and confirmatory testing by competent technical personnel should be mandatory.

Approval

In Manitoba the approval and permission of the Minister of Health and Public Welfare is required before a public water supply may be fluoridated. The interested municipality submits a brief outlining the technical aspects of the proposal endorsed by a motion of Council and generally by the medical officer. In some cases local service and professional groups submit supporting recommendations or motions.

The proposal is checked by technical officers of the Department to ensure that it is practicable and that the chemical may be added accurately, within the prescribed limits and without danger to the operating staff.

SUMMARY

When considering fluoridation of public water supplies it is essential to ensure first that there is enabling legislation or that there is no bar in existing statutes to obstruct the proposed program.

Apparently, pre-education is a requisite of a fluoridation program. Public acceptance should not be taken for granted or unduly hastened. If no attempt is made to popularize the purposes of fluoridation, any proposed program is almost automatically rejected. Administrative authorities should present unbiased data in simple language to give clear understanding of the potential benefits of fluoridation and to resolve any doubts or apprehensions in the minds of the people. Promotional material should stress the medical significance of fluoridation, the advantages from the dental standpoint, and the fact that the projected system will be under rigorous scrutiny and control.

The Federal-Provincial Hospital Insurance and Diagnostic Services Program[1]

E. H. LOSSING,[2] M.D., M.P.H.

THE Hospital Insurance and Diagnostic Services Act, which had been passed by Parliament in the Spring of 1957 became operative on July 1, 1958 as a result of an amendment which enabled the federal government to commence making contributions to the provinces as from that date. The original provision that no contributions might be paid under the Act until at least six provinces, containing at least one half of the population of Canada, had entered into agreements and had provincial laws in force, was deleted in June, 1958. In consequence, agreements were completed during that month with the provinces of Newfoundland, British Columbia, Manitoba, Alberta and Saskatchewan, in that order, permitting the initiation of the programs in those provinces.

Although Ontario had already entered into an agreement some months before, the province commenced its program only on January 1, 1959. Nova Scotia also commenced to operate its program on the same date.

New Brunswick began its program on July 1, 1959, and Prince Edward Island followed on October 1, 1959. On April 1, 1960 a hospital insurance program was established in the Northwest Territories.

Thus, as the program approaches the end of its second year of operation, the number of persons now covered by the Hospital Insurance and Diagnostic Services programs in Canada totals approximately 67% of the total Canadian population or, in terms of individuals, about 12 million people. The programs to which these residents have entitlement differ somewhat from province to province as will be seen from the following descriptions of provincial programs. In all programs, however, the basic in-patient services required to be provided under the federal Act, are made available.

The program in *Newfoundland* is administered by the Department of Health and the provincial share of costs is paid out of general revenues. There is no waiting period for benefits, as will be noted in some of the other provinces, nor are any authorized charges imposed. Every bona fide resident of the province is eligible for the insured services made available through the Newfoundland plan.

It will be recalled that although the Act requires certain basic services to be provided to in-patients, the provinces are given the option of including any or all of these services on an out-patient basis. In addition to the in-patient services which a province is required to provide in order to participate in the

[1]May, 1960. Adapted from a presentation to Medical Care Section, Canadian Public Health Association, Annual Meeting, Montreal, June 1959.

[2]Principal Medical Officer, Health Insurance, Department of National Health and Welfare, Ottawa, Ont.

program, Newfoundland also makes available a fairly wide range of out-patient services. These include laboratory and radiological procedures, encephalograms, cardiograms, and basal metabolism estimates, together with necessary interpretations; the use of radiotherapy and physiotherapy facilities, where available; and the services of persons receiving remuneration from a hospital with the exception of the clinical services of physicians and surgeons.

Out-of-province benefits, which mean the benefits to which an insured person is entitled when he is temporarily absent from the province, are provided in cases of emergency or where prior approval has been obtained from the Minister of Health.

Newfoundland was the first of the eastern provinces to commence a federal-provincial program. It should be recalled that Newfoundland had been operating a public program since 1934, the Cottage Hospital Program, and had initiated a public hospital program for children shortly before the inception of the province-wide plan on July 1, 1958.

The *Manitoba* program, while similar to that in Newfoundland insofar as the basic requirements of the federal Act are concerned, is different in a number of ways. The province appointed a Commissioner to administer the program while the Minister of Health and Public Welfare is responsible to the Legislature. The method of raising the provincial share of costs is by means of premiums imposed on a compulsory basis. These amount to $4.10 and $2.05 monthly for families and single persons, respectively. As in Newfoundland, there are no authorized charges but there is a one-month waiting period for benefits.

Initially, Manitoba provided out-patient services only when used for emergency diagnosis and treatment within 24 hours after an accident. Subsequently, the province expanded its insured out-patient services to include minor surgical procedures designated from time to time by the Minister, and in addition, facilities for electro-shock therapy. The minor surgical procedures which have been designated include the repair of wounds; the application and removal of casts; surgical dressings requiring special aseptic techniques; and the reduction of dislocations. The removal of small tumours and cysts and the removal of foreign bodies from the eye, ear or other accessible cavities, are also included. Biopsies, catheterization and lumbar punctures are considered as minor surgical procedures. Blood transfusions are also included. This list is, of course, not all-inclusive but is merely illustrative of the type of procedures which Manitoba has included as insured out-patient services.

Out-of-province benefits are also available to insured residents of Manitoba when temporarily absent from the province, in case of emergency or, in special circumstances, on the Commissioner's approval.

Although Manitoba had a public diagnostic program in operation for some years, this was the first occasion on which the province entered the public hospital insurance field.

Saskatchewan, unlike Manitoba, had been operating a public hospital program for a number of years. The administration of the Saskatchewan program had been, and continued under the joint federal-provincial program, the responsibility of the Department of Public Health. The Saskatchewan plan is a compulsory one and is financed through a hospitalization tax which was

reduced on July 1, 1958, to annual rates of $35.00 and $17.50 for families and single persons respectively. The previous waiting period of 6 months under the provincial plan, was reduced to a 3-month waiting period for benefits when Saskatchewan entered the federal-provincial program.

The major change in the services provided by Saskatchewan as a result of the Agreement with the federal government, was in the extension of out-patient services. Previously, Saskatchewan had only one insured out-patient service, the pathological examination of tissue, for which a $2.00 co-insurance charge was levied. After July 1, 1958, this tissue service was continued on an out-patient basis but the co-insurance charge was deleted. In addition, emergency out-patient services were made available within 24 hours after an accident. Subsequently, Saskatchewan added out-patient services provided by cancer clinics, and laboratory diagnostic procedures performed by the provincial laboratories as insured out-patient services and, as from January 1, 1960, the province further extended the emergency out-patient services by providing insurance coverage for subsequent changes of casts or dressings or removal of casts or sutures required as a consequence of an injury treated in a hospital or in an out-patient department.

Residents of Saskatchewan were originally entitled to hospital care when temporarily absent from the province for a maximum period of 92 days in Canada or 60 days annually when outside of Canada. In certain named hospitals in the adjoining province of Manitoba there was no limit on the length of stay other than that of medical necessity. The restriction on out-of-province care in Canada was subsequently removed by deleting the maximum number of days of entitlement.

A few months before the inception of the joint federal-provincial program in *Alberta*, certain changes in the former municipal hospital plan which had been operating in that province for some years, were made. When the joint program commenced, a Director of the Hospital Services Division was appointed in the Department of Public Health to administer the program. The Director reports to the Minister of Health.

A portion of provincial share of costs is raised through a property tax and authorized charges of $1.50 to $2.00 a day are levied on insured persons, depending on the size of the hospital providing the service.

Initially the Alberta program covered in-patient services in active treatment hospitals only but this in-patient area of the program was subsequently expanded by the inclusion of a number of chronic hospitals. Unlike the other provinces, Alberta does not provide any insured out-patient services under the Agreement with the federal government. However, the province recently instituted a limited program for welfare recipients. Since the federal Act requires that insured services must be made available to all residents of a province on uniform terms and conditions, this limited program is not eligible for inclusion in the joint program.

Alberta provides out-of-province benefits for insured residents when temporarily absent from the province in cases of emergency; on referral; or where out-of-province hospitals are more accessible.

One important change from the former plan, was the elimination of the waiting period of 12 months, which had previously been in effect.

The inception of the joint federal-provincial plan in *British Columbia* brought few changes in the previous provincial program. The former waiting period of 12 months, was reduced to three. The Commissioner who had administered the program was designated Deputy Minister of Hospital Insurance in a newly-named Department of Health Services and Hospital Insurance. No premium levy is imposed on residents of the province, but authorized charges are made in the amount of $1.00 per day for in-patient care.

Although British Columbia has not listed any out-patient services in the Agreement with the federal government, the province, nevertheless, provides an emergency service within 24 hours of an accident and out-patient minor surgery, for which an authorized charge of $2.00 is levied.

The out-of-province benefits in British Columbia are at present available only within a period of 3 months' absence from the province.

The *Ontario* program is administered by a Commission set up by the government, the Ontario Hospital Services Commission. The Minister of Health reports to the Legislature on the operation of the Commission. The provincial share of costs is raised by means of a premium amounting to $4.20 and $2.10 monthly for families and single persons, respectively. There are no authorized charges but there is a 3-month waiting period for benefits.

Unlike most of the other participating provinces, the Ontario program is compulsory only for persons employed in establishments with 15 or more employees. It is, of course, available on a voluntary basis to all other residents of the province. In order to ensure as wide a coverage as possible, the provincial law in Ontario prohibited the sale of standard ward hospital insurance in the province by commercial and non-profit agencies. It would appear that the measures adopted by the Province to ensure the widest possible coverage have been successful in that some 92% of the population of Ontario is now covered by the provincial plan, in spite of the fact that compulsory coverage is limited to the employed groups mentioned earlier.

One of the problems with which the Ontario program was faced was the problem of facilities for long term or chronic care. In addition to the inclusion of chronic hospitals in the province, Ontario enacted special regulations pertaining to a number of nursing homes which, among other things, were required to provide the in-patient services outlined in the law. In this way, it was possible to list a number of nursing homes, on a temporary basis, as participating hospitals in the agreement with the federal government.

In addition to the basic in-patient services which are required to be provided, Ontario has included in-patient services in mental institutions and tuberculosis sanatoria. As this area is specifically excluded from the operation of the federal Act, this segment of the Ontario program is solely a provincial responsibility.

On an out-patient basis, Ontario provides emergency services within 24 hours of an accident. Out-of-province benefits are provided to insured residents temporarily absent from the province, in hospitals approved by the Commission.

As in Ontario, a Commission was set up in *Nova Scotia* to administer the hospital insurance program. Here too, the Minister of Public Health reports to Parliament on the operation of the program.

The provincial share of costs in Nova Scotia is derived from a hospital tax of 3% which is earmarked specifically for this purpose. There are no authorized charges but there is a 3-month waiting period for benefits.

In addition to the basic in-patient services, Nova Scotia provides a wide range of out-patient services. Like most of the other provinces, Nova Scotia provides out-patient services in case of emergency, although, unlike the other provinces, the period of entitlement is within 48 hours following the accident.

In addition to the emergency out-patient services, the insured out-patient services in Nova Scotia include the following:

(i) laboratory examinations, from time to time specified by the Commission, together with necessary interpretations; (ii) electroencephalographic examinations and the interpretations thereof; (iii) diagnostic procedures involving the use of radioactive isotopes, and the interpretations thereof; (iv) use of radiotherapy facilities, where available, for the treatment of malignancy; (v) use of physiotherapy facilities where available; (vi) necessary nursing services; (vii) radiological examinations, from time to time specified by the Commission, together with the necessary interpretations.

Prior to the inception of the Nova Scotia program, an amendment was made to the provincial law to provide as insured out-patient services, "services other than medical services, provided by and within the Nova Scotia Tumor Clinic."

The laboratory tests specified by the Commission include Haematology, Biochemistry, Bacteriology, Histopathology, Virology and Serology, while the specified radiological examinations include all medically necessary diagnostic radiological examinations.

Out-of-province benefits are also available in case of emergency or with the prior approval of the Minister.

In both *New Brunswick* and *Prince Edward Island*, the provincial share of costs is raised through a premium system, the individual monthly premiums in New Brunswick being $4.20 and $2.10 for families and single subscribers respectively, and in Prince Edward Island, $4.00 and $2.00. The provinces differ, however, insofar as compulsory coverage is concerned. In New Brunswick, all residents are required to become insured while in Prince Edward Island, compulsory factors only apply to employee groups in which 3 or more persons are employed, or in certain designated groups. In effect, therefore, the Prince Edward Island program is similar to the Ontario program in that for certain residents of the province, coverage is voluntary. It might be mentioned, that these are the only two provinces in which this voluntary enrolment element exists.

In both Prince Edward Island and New Brunswick there is a 3-month waiting period for benefits and neither province imposes any authorized charges. Both programs are administered by Commissions set up under law for the purpose.

Insofar as the scope of services is concerned, the basic in-patient services are similar in both programs. Furthermore, both provinces provide a wide range of insured out-patient services.

The out-patient services in New Brunswick consist of diagnostic and treatment procedures as authorized; provincial laboratory services as specified;

rehabilitation services in conjunction with physiotherapy, where available; and emergency including follow-up care in accident cases. Initially, New Brunswick provided emergency services, as are provided in a number of other provinces. The need for providing follow-up care in emergency cases, however, was soon recognized and the necessary amendment was made both in the provincial law and in the Agreement with the federal government.

The out-patient services which are provided through the program in Prince Edward Island, are also broad in scope. They include laboratory procedures as specified; specified radiological procedures, including the use of radioactive isotopes; drugs, biologicals and related preparations for emergency diagnosis and treatment; as well as the other services as listed for in-patients.

The program in the *Northwest Territories* is similar to the programs in a number of other provinces in that the required range of in-patient services and emergency out-patient services are included as insured services. The territorial share of costs will be met through general revenues and an authorized charge amounting to $1.50 for each day the insured person receives in-patient services. The territorial program will be administered by the Territorial Hospital Insurance Services Board which was set up in accordance with the provision of the Ordinance to provide hospital insurance for residents of the Northwest Territories.

The scope of the out-patient services provided by the various provincial plans has been explained in some detail as in this area some of the most interesting and important developments will occur. It is certain that with the increasing availability of facilities, and as a result of experience, important extensions in out-patient services will be seen. These developments will result in making a more comprehensive health program available, and will have a very important effect on the utilization of in-patient services.

Mention has been made of the out-of-province benefits to which residents temporarily absent from their home province are entitled. Out-of-province benefits are also available to residents who leave their own province to take up residence elsewhere. It will be recalled that of the 9 participating provinces, 7 have waiting periods for entitlement to insured services which vary from one month to a maximum of 3 months. It was important therefore to make provision so that the person who moves from one province to another should not suffer a lapse of coverage before he is able to acquire protection in his new province of residence. With the co-operation of the provinces, steps have been taken to ensure that an interruption of coverage does not occur. The Federal Regulations were amended in June 1958 to permit a person who moves to another province, to continue to be a resident of his original province for such length of time, not exceeding 3 months, as will enable him to acquire entitlement in his new province. Allowance is also made for a reasonable period of travelling time from the one province to the other.

A word about the financial aspects of the program may be of interest. The Act provides for the payment of federal contributions based on the per capita cost of in-patient services in Canada and the per capita cost in the province. These payments, which are made yearly, on completion of the year's transactions, are devised so that while the federal contribution represents roughly one half of the costs across the country, the contribution made to each pro-

vince varies with the level of costs in that province. This means that the provinces in which costs are lower than the national average, receive a higher proportion than do the high cost provinces. The magnitude of the program in terms of money is reflected in the fact that provision has been made in the estimates for the current fiscal year for an amount of $167 million. This of course represents approximately half the cost of the program, the other half being borne by the participating provinces collectively.

Although the final federal contribution is made annually, the provinces do not need to wait until the close of the year for financial support. The legislation provides for advance payments to be made. These advances, which are made each month, are based on the amounts actually paid by the province in that month to hospitals participating in the program. It should be emphasized that these advances are in the nature of interim payments on account of the final federal contribution, and adjustments as necessary are made in the amount of the final payment on completion of the year's transactions.

It is well to stress the fundamental point that, important as the financial implications of the plan undoubtedly are, the hospital insurance program is primarily a health service rather than a fiscal program. It is the hope that through arrangements which the provinces have made to fulfil their commitment to maintain and improve standards of hospital care, hospital and diagnostic services of the very highest order will be available to all residents of Canada.

Progress in making hospital care and diagnostic services available to all persons requiring such services will be rapidly reflected in the further advance of public health in this country. The changing role of the hospital itself from an institution designed merely to care for the sick, to a center for community health services, including public health, will further still more the goals of such organizations as the Canadian Public Health Association.

Two years of experience with the hospital insurance program confirm earlier indications that serious difficulties have been remarkably few. It is felt that this speaks well for the soundness of the planning of the program, and provides a basis for optimism concerning its future development.

Résumé

Le Programme de l'assurance-hospitalisation aura bientôt deux ans d'existence, et quelque douze millions de personnes, soit 67 p. 100 de la population canadienne, en bénéficient.

Tous les programmes provinciaux offrent les services hospitaliers fondamentaux requis par la Loi. Cependant, les modes d'administration et de financement, ainsi que la mesure dans laquelle les services externes assurés sont offerts, varient selon les provinces et ces particularités sont décrites ici. L'envergure des services externes est exposée avec un certain détail vu que l'on croit que d'importants développements se feront jour dans ce domaine.

Deux années d'expérience acquise dans l'administration du Programme de l'assurance-hospitalisation viennent confirmer les indications premières que les difficultés sérieuses seraient remarquablement rares et il y a tout lieu d'être optimiste quant aux réalisations futures.

Trichinella Infection in Swine in the Vancouver Area

JOAN M. TAILYOUR[1] AND J. R. STEELE[2]

THE present check for *Trichinella spiralis* infection in swine in the Vancouver area was undertaken because pork from local suppliers seemed to be incriminated in two cases of trichinosis diagnosed in 1958 (1). A previous survey carried out in 1949 by Moynihan and Musfeldt (2) indicated an incidence of infection of 4.5% of all swine specimens examined. No infection was found when the same piggeries were examined five years later (3).

It was decided to check the diaphragms of all hogs passing through the City Meat Inspection Depot during a two week period in September and again from November 23 to December 6, 1959. The samples were examined for *T. spiralis* larvae by two methods. One gram of muscle from each specimen was examined microscopically in a trichina compressorium, while further segments were cut from different parts of the tendinous insertion (4), ground in a fine mesh meat grinder and 50 grams digested in 500 ml. artificial gastric juice. After 18 hours at 37°C. with frequent stirring, the mixture was placed in a Baermann apparatus overnight. The next morning 50 ml. of sediment was examined for trichinellid larvae.

A total of 390 samples from eight piggeries were examined. *T. spiralis* larvae were demonstrated in only two swine from two of these establishments; in one case the incidence of infection was 1.4% while in the other it was slightly higher at 3.9%.

Summary

The diaphragms of all hogs passing through the Vancouver City Meat Inspection Depot for a total period of 4 weeks during the fall of 1959, were examined for *Trichinella spiralis* larvae. Two animals from two establishments were positive, the incidence of infection in one case being 1.4% and in the other 3.9%.

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Canadian Journal of Public Health

REPORT ON THE QUALIFICATIONS, REQUIREMENTS AND MINIMUM SALARIES FOR PUBLIC HEALTH PERSONNEL IN CANADA (FOURTH REVISION)

FOURTEEN years ago the Association undertook a survey at the request of the Dominion Council of Health of the qualifications and requirements of public health personnel in Canada and of the salaries received as well as the provision of pensions, holidays, sick leave and other factors which affect the earned income. It was realized by public health leaders, facing the needs of public health in the immediate post-war period, that the most important problem in every official health agency was the recruitment and maintenance of proficient and qualified professional and technical staff. Today, the problem is even more urgent. The first survey showed clearly the need for defining the essential qualifications for each of the professional and technical groups. Succeeding reports, including the report approved by the Executive Council at the recent Halifax meeting of the Association, have reflected the developments in the various fields of public health. There is need for continued study of qualifications, not only of the senior professional groups but of the numerically smaller groups of vital professional and technical members of the public health team.

The present Committee on Salaries and Qualifications of Public Health Personnel has already been commissioned to undertake this most important work. Intelligent efforts in recruiting public health personnel can only be made when the specific needs are defined and the essential qualifications are established. The value of the Association's contribution to the improvement of public health services in Canada through the issuing of the reports of the survey study committee at regular intervals cannot be overestimated. Probably no contribution of greater importance could have been made by the Association to the sound development of provincial and local health services than has been made through the survey study committee.

The conduct of the study entails a great amount of work. The Association is deeply indebted to Dr. L. A. Clarke, Medical Officer of Health of the City of Hamilton, Ontario, Chairman of the Committee, and to the Honorary Treasurer, Dr. William Mosley, and the Honorary Secretary, Dr. G. W. O. Moss, for their contributions to the success of this project. The Committee was most fortunate in having the technical assistance of Mrs. O. Munro who has participated in each of the surveys.

RECOMMENDED QUALIFICATION REQUIREMENTS AND MINIMUM SALARIES FOR PUBLIC HEALTH PERSONNEL IN CANADA (FOURTH REVISION)

IN 1946 the Canadian Public Health Association established a Committee on Salaries and Qualifications of Public Health Personnel. At the request of the Dominion Council of Health this committee carried out a Canada-wide survey of official public health agencies.

The Committee's report (Canad. J. Pub. Health, 1947, *38*: 1) contained data regarding the various salary ranges offered for the different types of professional and technical personnel that make up an official public health agency. Information about factors other than salary that affect income was included.

The second part of the report contained recommended educational qualification and experience requirements for the majority of jobs in health agencies and a suggested *minimum* salary level for each group or grade of position.

This report was adopted by the Dominion Council of Health on November 6, 1946 and distributed by the Department of National Health and Welfare.

The Executive Council of the Canadian Public Health Association, in approving the report at the annual meeting in 1947, recommended that the report be revised in 1948 in order to keep it up to date with present trends.

At the annual meeting of the Canadian Public Health Association in Montreal, May 29–31, 1951, the Committee on Salaries and Qualifications of Public Health Personnel was requested to revise the 1948 report.

In 1951 and 1956 the Committee on Salaries and Qualifications of Public Health Personnel was asked to review the report. These reports stated that the major problem facing the official health agencies was the recruitment and maintenance of an efficient, qualified professional and technical staff. This statement is still true. At the annual meeting of the Canadian Public Health Association in Montreal, June 1–3, 1959, the Committee was asked by the Executive Council of the Association to review the report again. Data were collected from most of the official public health agencies in Canada for the 1959 revision. The major portion of the data collected appears in the tables of the appendix.

GENERAL RECOMMENDATIONS

The data regarding factors other than basic salary which affect the earned income of the salaried individual are, to all intents, similar to those of the original report.

This is the fourth revision of the Report on Salaries and Qualifications of Public Health Personnel. The original report was published by the Association in 1947, the first revision in 1949, the second revision in 1952, and the third in 1957.

This report was approved by the members of the Canadian Public Health Association at the fiftieth annual meeting of the Association held in Halifax, May 31–June 2, 1960.

Recommendations regarding these factors are as follows:

1. That all professional or technical personnel employed by official health agencies be employed on the understanding that they will receive upon the recommendation of their employer, an annual increment of approximately 5 per cent of the basic salary for at least 5 years up to a maximum salary, with competence in the performance of duties as the obviously sound basis for such recommendations. Maximum taxable salaries should be comparable with those obtainable in professional or technical jobs of similar responsibility in the same region.

2. That all such employees of official health agencies should be provided with the opportunity to participate in a superannuation or pension scheme, financed by contributions from employee and employer, or some equivalent method. It is desirable that these pension plans be made reciprocal and it is recommended that health agencies investigate the feasibility of reciprocal arrangements. It is recommended that after a minimum of twenty years' service provision be made to hold superannuation in abeyance for a person changing employment until the retirement age adopted by the particular scheme, after which payment would begin on the basis of total contributions made.

3. That automobiles be provided or car allowance be granted personnel whose duties require them to travel. Such allowances should not be regarded as forming part of the salary. The ownership of a car should not be a condition for employment. Where it is desirable for personnel to own their own cars and the agency does not provide a car, arrangements for financing the car should be made by the agency; this is most important for recruitment purposes.

4. That professional or technical employees receive, upon the completion of one full year's employment, three full weeks' holidays with pay per annum; and in the case of personnel whose duties require them to be on call evenings and holidays, that this period be extended to four full weeks with pay, or that "in lieu time" pay be arranged to compensate for this extra work.

5. That employees receive cumulative sick leave equivalent to 1½ days per month and that pay and allowances equivalent to a percentage of unused cumulative sick leave be given as a bonus to employees upon leaving or superannuation.

6. That provision be made in the budget of the health agency for professional training of personnel at postgraduate or refresher courses and attendance at scientific meetings.

7. That when qualified, experienced personnel are newly employed, their starting salary should be at the level that their previous experience would indicate.

8. SALARIES THAT ARE SUGGESTED FOR THE VARIOUS GROUPS ARE CONSIDERED TO BE THE MINIMUM SALARY THAT SHOULD BE USED FOR THAT PARTICULAR POSITION OR GRADE ANYWHERE IN CANADA. Areas or provinces that have a generally higher economic status should make an upward adjustment of these suggested minima. These recommendations are proposed as a basis or guide to authorities in the preparation of salary classifications and schedules. *The recommendations do not include cost-of-living bonus, car allowance, etc.*

RECOMMENDATIONS BY OCCUPATION

Each profession and technical occupation has been divided into salary groups with responsibility, experience, and training as the factors which govern the variation between groups. Personality qualifications have not been included in the recommendations, as their value can only be judged by the employing agency.

Authorities may find that the recommended groups in a specific profession do not suit their needs, in which case the groups can be adapted to fit these needs. In order to classify those positions that are not specified, the authorities concerned should match the qualification requirements and responsibilities of the position in question with those of one of the recommended groups in this report. In this way they will be able to classify the position under discussion.

It is realized that there are many persons now engaged in the practice of public health who have not received the formal educational training recommended. It is to be understood, in interpreting the recommended qualifications, that practical field experience obtained under competent supervision can be considered in special cases as an alternative to formal education and that these recommended qualification requirements may be adjusted to include those persons already employed who are without formal training but giving creditable service in public health. *However, the recommended qualifications should be adhered to when new appointments are being made.*

It should be noted that the term "basic minimum salary" in this report means the minimum salary as laid down for a specific position exclusive of such items as cost-of-living bonus, car or room and board allowances, etc.

PHYSICIANS IN PUBLIC HEALTH AGENCIES

GROUP I

Duties: This group includes physicians engaged in public health as assistant clinicians in treatment or public health clinics; junior school physicians; junior assistants in a health department at a provincial or city level; and other positions that do not require specialty training.

Qualifications: Graduation in medicine from an approved university or registration by a provincial licensing authority, and a minimum of one year's rotating internship in a general hospital.

Basic MINIMUM *Salary* $7,250 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

It is from the above groups that personnel can be selected for postgraduate training in public health or one of the allied specialties.

GROUP II

Duties: This group includes physicians in such positions as medical officer of health of cities with population up to 50,000 or assistant health officer in health units; assistant to the director of a division at city or provincial level; district health officer in a city with population over 100,000; junior specialist in special services such as mental hygiene, maternal and child hygiene, tuberculosis, laboratories, etc.

Qualifications: In addition to the qualifications required for Group I, a degree or diploma in public health from an approved university or, in the case of the allied specialties, postgraduate training of at least one year, recognized by the Royal College of

Physicians and Surgeons of Canada as leading to certification in the specialty indicated; or equivalent supervised in-service training in a public health agency or in the specialty indicated.

Basic MINIMUM *Salary* $8,750 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP III

Duties: This group includes such positions as medical officer of health of a health unit or city with population up to 100,000; director of a division in larger cities or similar divisions in provincial departments; chief specialist of services, such as tuberculosis, mental hygiene, etc., at a larger city level; regional consultant specialist for several health units or assistant chief of such services in a provincial service.

Qualifications: In addition to the qualifications required for Group II, at least three years' training and experience in a public health department or in the specialty indicated. If such an incumbent holds the Specialist's Certificate in Public Health from the Royal College of Physicians and Surgeons of Canada or the American Board of Preventive Medicine and Public Health, he should receive additional remuneration.

Basic MINIMUM *Salary* $10,750 plus an annual increment of at least $500 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP IV

Duties: This group includes such positions as assistant medical officer of health of cities with population over 100,000; regional medical officer of health supervising several health units; assistant deputy minister; director of a senior division or chief specialist in the senior or larger specialty groups at provincial level.

Qualifications: In addition to the qualifications required for Group II, certification as a specialist by the Royal College of Physicians and Surgeons of Canada or the American Board of Preventive Medicine and Public Health.

Basic MINIMUM *Salary* $13,000 plus an annual increment of at least $500 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP V

Duties: This group includes such positions as provincial deputy minister of health or chief medical officer, and medical officer of health of cities with population over 100,000.

Qualifications: In addition to the qualifications required for Group IV, a total of ten years' service in public health and proven administrative ability.

Basic MINIMUM *Salary* $16,000 plus an annual increment of at least $500 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

PUBLIC HEALTH NURSING PERSONNEL

Of the total of 2,971 nurses reported, approximately 65 per cent have public health nursing qualifications. The need for an increased number of qualified public health nursing personnel for staff and supervisory positions is evident.

Although there has been a gradual upward trend in salaries, approximately 60 per cent of the qualified public health nurses, in staff positions, start at salaries ranging from $3,000 to $3,400. The beginning salaries for 43 per cent of the supervisors fell below $4,000. Recruitment of experienced public health nurses with advanced preparation would be accelerated by improved salaries.

The distribution of these positions and salaries is shown in Appendix B, Tables I and II.

As with most other public health categories nurses would be encouraged by a greater range between minimum and maximum salaries.

REGISTERED NURSE is one who holds a diploma from a recognized school of nursing and provincial registration.

UNIVERSITY PREPARATION means the successful completion of not less than one year in a university school of nursing after qualifying as a registered nurse.

GROUP I

Duties: This group includes registered nurses with public health nursing agencies who function in clinics and/or as staff nurses with no special qualifications in public health.

Qualifications: Registered nurse.

Basic MINIMUM *Salary* $3,600 plus an annual increment of at least $180 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP II

Duties: This group includes qualified staff nurses employed in general public health or one of the specialized branches of public health.

Qualifications: A registered nurse with a diploma in public health nursing from a university or a baccalaureate degree in nursing with preparation in public health.

Basic MINIMUM *Salary* $4,000 plus an annual increment of at least $200 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP III

Duties: This group includes assistant supervisors or senior nurses responsible for assisting the supervisor in a public health agency and who assumes full responsibility in the absence of the supervisor.

Qualifications: In addition to qualifications required for Group II, one year of university training in administration and supervision and public health nursing experience.

Basic MINIMUM *Salary* $4,600 plus an annual increment of at least $200 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP IV

Duties: This group includes supervisors responsible for supervision of a number of public health nurses and for administration of the nursing program in a given area or a special service.

Qualifications: In addition to the qualifications for Group III, having had senior staff nurse responsibilities and leadership abilities.

Basic MINIMUM *Salary* $5,000 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP V

Duties: This group includes regional supervisors and consultants in public health. The regional supervisor acts in a supervisory and general consultant capacity to supervisors and general staff in a given regional area. Consultants provide consultation to administrative, supervisory and general staff in matters relating to a specific program. Both groups may be responsible for certain administrative details.

Qualifications: In addition to the qualifications of Group IV, special preparation in a specialty or at least three years' experience in administration and supervision.

Basic MINIMUM *Salary* $5,300 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP VI

Duties: This group includes directors of public health nursing in cities with populations of up to 100,000; directors of public health nursing in smaller provinces; assistant directors

of public health nursing in cities with population of more than 100,000; educational supervisors at provincial level.

Qualifications: In addition to the qualifications of Group V, a minimum of six years' experience in public health nursing, three of which have been in administration and supervision. It is desirable that this group should hold a baccalaureate degree in nursing.

Basic MINIMUM *Salary* $6,000 plus an annual increment of at least $300 to the maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP VII

Duties: This group includes directors of public health nursing at provincial or large city level.

Qualifications: In addition to Group VI, a minimum of ten years' experience, three of which have been in administration and supervision or equivalent responsibility. It is desirable that this group should hold a Master's degree in nursing.

Basic MINIMUM *Salary* $7,000 plus an annual increment of at least $350 to the maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

ENGINEERS IN PUBLIC HEALTH AGENCIES

There are 83 engineering positions reported in 1959, an increase of 8 positions over 1956. The distribution of these positions is shown in Appendix C, Table I.

As this is one of the most highly competitive fields in industry at the present time it will become increasingly difficult to recruit adequately trained personnel for public health agencies unless the starting salaries and the salary ranges are increased.

Engineering positions in public health agencies cannot be considered to be competitive with industry generally. Some engineers of high calibre motivated to public service may be obtained initially at the salaries presented, but few of them can be expected to remain with the limited salary range offered when they are subjected to the more attractive opportunities open for such professional ability.

GROUP I

Duties: This group includes engineering positions that require a graduate engineer with no specialized experience or postgraduate training to perform routine engineering duties under the supervision of a qualified public health engineer.

Qualifications: Graduation in engineering from an approved university.

Basic MINIMUM *Salary* $5,500 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP II

Duties: This group includes engineering positions that require a graduate engineer with one year of postgraduate training at an approved university and one year's experience under the supervision of a qualified public health engineer.

Qualifications: In addition to the qualifications for Group I, one year of postgraduate training in public health engineering at an approved university.

Basic MINIMUM *Salary* $6.000 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP III

Duties: This group includes such positions as assistant public health engineers employed in public health engineering under supervision at provincial or large city (population over 100.000) level.

Qualifications: In addition to the qualifications for Group I, one year of postgraduate

training in public health or sanitary engineering at an approved university. In exceptional cases, Group I engineers who have had at least three years' supervised experience in public health or sanitary engineering may be included in this group.

Basic MINIMUM *Salary* $6,750 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP IV

Duties: This group includes such positions as public health engineer of cities with population up to 100,000, regional consultant for several health units, or assistant director of public health engineering at provincial level.

Qualifications: In addition to the qualifications of Group II, five years' experience in public health engineering in a public health agency.

Basic MINIMUM *Salary* $8,500 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP V

Duties: This group includes such positions as director or senior specialist of public health engineering at provincial or large city (population over 100,000) level.

Qualifications: At least one year and preferably two years of postgraduate training in public health engineering and in addition, eight years' experience in the field of public health engineering; in the administrative positions, two years of administrative experience.

Basic MINIMUM *Salary* $10,000 plus an annual increment of at least $500 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

DENTISTS IN PUBLIC HEALTH AGENCIES

The need for full-time dentists in public health agencies is as acute as ever.

Although there has been some upward trend in public health dentists' salaries, and while this might appear encouraging in relation to the 1956 figures, the increase has not kept pace with that in private practice across Canada. Here again, the limited range of salaries offers little incentive for trained people to remain in public service.

GROUP I

Duties: This group includes such positions as staff dentist carrying out a dental treatment program in a public health agency.

Qualifications: Graduation in dentistry from an approved university.

Basic MINIMUM *Salary* $7,000 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP II

Duties: This group includes such positions as Director of Dental Public Health in a health unit or a city with population up to 100,000, or Assistant Director in a city with population over 100,000.

Qualifications: In addition to qualifications of Group I, a diploma or degree in dental public health from an approved university.

Basic MINIMUM *Salary* $8,750 plus an annual increment of $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP III

Duties: This group includes such positions as Director of Dental Public Health of a city with population over 100,000, regional director of a group of health units, assistant director on the provincial or federal level, or senior specialist.

Qualifications: In addition to qualifications for Group II, at least three years' administrative experience in dental health services or graduation in a recognized specialty other than, or in addition to, public health.

Basic MINIMUM *Salary* $10,750 plus an annual increment of $500 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP IV

Duties: This group includes such positions as Director of Dental Services of a Division on the federal or provincial level.

Qualifications: In addition to the qualifications of Group III a total of at least five years' experience in dental health services and proven professional ability.

Basic MINIMUM *Salary* $13,000 plus an annual increment of $500 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.'

PUBLIC HEALTH LABORATORY PERSONNEL

The professional staff consisting generally of university trained personnel have had an increase in their salary ranges, but in most cases this increase did not keep pace with the upward trend of salaries throughout the country.

The technical staff have made relatively good increases since 1956 as compared with other groups. The wide range of salaries reported again reflects the wide range of responsibility related to the technical jobs and the size of the laboratories.

The same facts as were noted in previous reports regarding the recruitment and retention of satisfactory laboratory personnel are still applicable and are repeated below:

1. The excessive turnover in the technical groups, with its wastage of effort and money, can be reduced only by increasing the salaries to such an extent that men will be attracted to this field of work.

2. The greatest need at present in laboratories is more men as candidates for the positions in the higher professional groups. In order to induce university graduates to accept a career in the laboratory, salaries offered must be commensurate with comparable professional employment.

The situation in the laboratories across Canada in regard to recruiting and maintenance of staff has been very serious for several years. The work in laboratories has become more highly specialized and the increasing demand for more extensive laboratory procedures calls for more highly trained personnel and their assumption of more responsibility. This type of person is not available and cannot readily be recruited at the present salary levels offered in Canada.

Technical Staff

GROUP I

Duties: This group includes laboratory technicians with no special qualifications or experience engaged in technical work under the supervision of qualified personnel.

Qualifications: An educational background equivalent to high school graduation and, in addition, one year's experience in a public health or equivalent laboratory.

Basic MINIMUM *Salary* $2,500 plus an annual increment of at least $100 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

GROUP II

Duties: This group includes laboratory technicians engaged in technical work in a public health laboratory whose duties require the assumption of some responsibility in the preparation of media or specimens, the examination of specimens, or similar laboratory procedures.

Qualifications: In addition to the requirements of Group I, graduation from an approved training course, e.g. R.T. of Canadian Society of Laboratory Technologists or three years' experience in public health or equivalent laboratory.

Basic MINIMUM *Salary* $3,500 plus an annual increment of at least $150 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

GROUP III

Duties: This group includes such positions as junior laboratory assistants and requires the assumption of part of the responsibility for the operation of a section of the laboratory.

Qualifications: Preferably a specialist certificate from the Canadian Society of Laboratory Technologists or its equivalent and, in addition, five years' supervised training in a public health or equivalent laboratory.

Basic MINIMUM *Salary* $4,500 plus an annual increment of at least $200 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

GROUP IV

This group of senior laboratory assistants will have the same basic qualifications as Group III but because of exceptional merit they will be in a position of senior responsibility.

Basic MINIMUM *Salary* $5,500 plus an annual increment of at least $250.

Professional Staff

GROUP I

Duties: This group includes such positions as junior assistant bacteriolgist, chemist, or serologist in a public health laboratory.

Qualifications: Graduation from an approved university, preferably having majored in bacteriology or chemistry.

Basic MINIMUM *Salary* $4,500 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP II

Duties: This group includes such positions as senior assistant bacteriologist, chemist or serologist in a public health laboratory.

Qualifications: In addition to the requirements of Group I, a year's postgraduate training in their specialty at an approved university or equivalent supervised training in a public health laboratory plus a period of two years' service in a public health laboratory.

Basic MINIMUM *Salary* $5,500 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP III

Duties: This group includes such positions as associate bacteriologist, chemist or serologist in a public health laboratory.

Qualifications: A master's degree and at least three years' varied experience in a large public health laboratory.

Basic MINIMUM *Salary* $6,500 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP IV

Duties: This group includes such positions as principal bacteriologist, chemist or serologist in a public health laboratory.

Qualifications: A doctorate in bacteriology or chemistry and, in addition, five years' experience in public health laboratory procedures and the administrative or research experience required for the position.

Basic MINIMUM *Salary* $7,500 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP V

Duties: This group includes such positions as assistant director of a public health laboratory.

Qualifications: A doctor's degree in bacteriology or chemistry and, in addition, five years' experience in public health laboratory procedures, of which two years should have been in an administrative capacity.

Basic MINIMUM *Salary* $8,500 plus an annual increment of at least $500 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP VI

Duties: This group includes directors of public health laboratories.

Qualifications: These positions are held by personnel of widely varying background and experience. Each agency may define its own specifications for this position by comparing the qualifications and training of the incumbent with positions of equal responsibility in other branches of public health.

Basic MINIMUM *Salary* $9,500 plus an annual increment of at least $500 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GRADUATES IN VETERINARY MEDICINE

The distribution of the salaries is shown in Appendix F, Table I.

The salary levels for veterinarians in public health are not adequate because the private practice of veterinary medicine is still much more attractive from a monetary standpoint. If public health positions require postgraduate training in addition, then salary levels must be brought closer to those obtainable in private practice in order to compete successfully for the available graduates.

GROUP I

Duties: This group includes such positions as veterinary inspectors, and other positions requiring graduates in veterinary medicine to work under supervision.

Qualifications: Graduation from an approved university school of veterinary medicine.

Basic MINIMUM *Salary* $6,000 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region

GROUP II

Duties: This group includes such positions as senior veterinary inspectors and other positions requiring graduates in veterinary medicine to work under supervision.

Qualifications: Graduation from an approved university school of veterinary medicine. In addition to the qualifications required for Group I, at least two years' experience in veterinary medicine.

Basic MINIMUM *Salary* $6,500 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP III

Duties: This group includes such positions as assistant chief of a division of food control of large health departments or chief inspector of health units or other positions where the

duties require a qualified veterinarian to assume some of the responsibility of the operation of a food control division in a health agency.

Qualifications: In addition to the requirements of Group I, a diploma or degree in veterinary public health from an approved university and one year's supervised experience in a health agency; or in lieu of these qualifications, four years' supervised experience in a health agency.

Basic MINIMUM *Salary* $7,500 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP IV

Duties: This group includes such positions as director of food control in a health department serving a population up to 100,000, or other positions requiring qualified veterinarians, e.g. regional supervisory veterinarians.

Qualifications: In addition to the qualifications of Group II, five years' experience in veterinary medicine in public health. In exceptional cases, personnel who have had ten years' experience in veterinary public health may be included in this group.

Basic MINIMUM *Salary* $9,000 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

GROUP V

Duties: This group includes such positions as director of a division of food control in a city with a population over 100,000, or consultant veterinarian at larger provincial level.

Qualifications: In addition to the Diploma in Veterinary Public Health, ten years' experience in a public health agency, two of which should have been in an administrative capacity.

Basic MINIMUM *Salary* $10,500 plus an annual increment of at least $500 to a maximum salary comparable to that obtainable in professional positions with similar responsibility in the same region.

PUBLIC HEALTH STATISTICAL PERSONNEL

There is a continuing shortage of public health statistical personnel of all grades and qualifications. The present remuneration for services is undoubtedly an important contributory factor in this situation.

The bulk of statistical work requires the services of non-professional personnel with special aptitude and experience in statistical work and any realistic classification of public health statistical personnel must provide for them.

It is therefore recommended that the Section on Public Health Statistical Personnel be completely reviewed and revised in respect of their duties, qualifications (academic and personal) and minimum salaries, and that this task be undertaken for the Committee on the Qualifications and Salaries of Public Health Personnel by a special Sub-Committee to be appointed by the Section Council of the Vital and Health Statistics Section.

It is therefore further recommended that consideration be given to a more complete classification of public health statistical personnel—perhaps a dual one—to cover more adequately the non-professional statistical group (statistical clerks) without whose services few health statistics would be produced; while this may be able to be accomplished by a single joint classification, it is unlikely that this may be acceptable.

For the purpose of this report, public health statistical personnel have been divided into four groups, including both professional and clerical groups. Medical personnel with training in public health statistics are not included in these classifications as they are included in the recommendations regarding physicians.

GROUP I

Duties: This group includes such positions as statistical clerks whose duties require knowledge of methods of collection and tabulation of public health statistics and the

ability to supervise, under senior direction, a group of clerical staff engaged in the compilation of statistical data.

Qualifications: High school graduation and four years' supervised experience in statistical work in a public health or similar agency.

Basic MINIMUM *Salary* $3,500 plus an annual increment of at least $150 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

GROUP II

Duties: This group includes such positions as assistant statistician in large health departments or chief statistical clerk in smaller cities or health units. Duties should include responsibility for the collection and presentation of the public health statistical data or a section of it under the guidance of a consultant statistician.

Qualifications: Graduation from a recognized university where studies include the elements of statistical methods, and, in addition, one year's supervised experience in public health statistics in a public health agency. Exceptional personnel who by experience have acquired an educational training equivalent to the above may be included in this group. A minimum of six years' supervised experience should be required as an equivalent.

Basic MINIMUM *Salary* $4,500 plus an annual increment of at least $200 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

GROUP III

Duties: This group includes such positions as assistant director of statistical divisions in public health agencies and regional consultant statistician for a group of health units.

Qualifications: In addition to the requirements of Group II, one year's postgraduate training in public health statistics or a course of study leading to a certificate in public health at a recognized university. As in Group II, exceptionally well trained personnel who have not had formal academic training may be included in this group if they have had nine years' supervised training in public health statistics.

Basic MINIMUM *Salary* $5,500 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

GROUP IV

Duties: This group includes such positions as director of public health statistical services in large health agencies. These personnel should be capable of interpreting and analyzing statistical data and directing statistical research programs.

Qualifications: Graduation from a recognized university plus two years' postgraduate study, one year of which should have been in statistical methods and theory, preferably leading to a master's degree, and the other in public health. In addition, five years' experience in a statistical division of a public health agency, of which one year should have been in an administrative capacity.

Basic MINIMUM *Salary* $8,500 plus an annual increment of at least $500 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

NUTRITIONISTS IN PUBLIC HEALTH AGENCIES

There are 55 positions reported in 1959 as against 50 in 1956. The greatest number of starting salaries offered are in the range of $3,000–$4,500. This represents a change only in the upper limits of the starting salaries. The majority of persons are limited to a maximum of $5,500 per year. In view of this lack of incentive few trained nutritionists are attracted to the public health field and so a shortage of personnel still exists.

Medical personnel with training in nutrition are not included in the following classifications as they have been included with the recommendations for public health physicians.

GROUP I

Duties: This group includes the position of junior nutritionist under supervision in a city department of health or a provincial division of nutrition designed to acquaint these people with the field to determine whether they should proceed to postgraduate training in public health nutrition or its equivalent, after a minimum of one year and a maximum of three years' experience.

Qualifications: Graduation from an approved university with a degree of B.A.; B.H.E.; B.Sc.; or B.H.Sc. in a course majoring in home economics, food chemistry, nutrition or related subjects. A registered dietitian is desirable.

Basic MINIMUM *Salary* $4,000 plus an annual increment of $200 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

GROUP II

Duties: This group includes such positions as assistant nutritionists in provincial or city health departments or other positions requiring a qualified nutritionist to be employed under supervision.

Qualifications: Graduation from a recognized university with a degree of B.A.; B.H.E.; B.Sc.; or B.H.Sc. in a course majoring in home economics, food chemistry, nutrition or related subjects and, in addition, one year's postgraduate work in public health or nutrition leading to a diploma in nutrition or a Master's degree. A registered dietitian is desirable. Previous experience in the general field of nutrition is an asset.

Basic MINIMUM *Salary* $5,000 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

GROUP III

Duties: This group includes such positions as assistant director of a division of nutrition in a province or city with population over 100,000, regional consultant nutritionist for several health units, or other senior nutritionist position. A person in this position would be required to act as a consultant in the field of nutrition to all the disciplines of an official agency, and co-operate with others in the community so that a co-ordinated nutrition education program would be in effect.

Qualifications: In addition to the qualifications of Group II, three years' experience in public health nutrition.

Basic MINIMUM *Salary* $6,000 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

GROUP IV

Duties: This group includes such positions as a director of a division of nutrition in a health department of a city with population over 100,000 or a provincial health department.

Qualifications: In addition to the qualifications of Group II, at least five years' experience in public health nutrition, part of which should be in an administrative capacity.

Basic MINIMUM *Salary* $7,000 plus an annual increment of at least $350 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

SANITARY INSPECTORS

There were 800 positions reported in 1959 as against 665 in 1956. The distribution of these salaries is shown in Appendix I, Table I.

As in other groups there has been a similar increase in the salary ranges of sanitary inspectors. The majority of non-supervisory sanitary inspectors may expect a maximum

salary of between $4,000 and $5,500. The majority of the chief sanitary inspectors can expect to reach a salary between $4,500 and $6,000. This does not seem to offer inducement for personnel either to increase their training or to accept more responsibility. In other words, the inducements to stay in sanitary inspection work as a career are limited.

GROUP I

Duties: This group includes positions that require a qualified sanitary inspector to carry out inspectional duties under the supervision of a senior member of the public health agency.

Qualifications: The Certificate in Sanitary Inspection (Canada).

Basic MINIMUM *Salary* $3,800 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

GROUP II

Duties: This group includes such positions as senior inspector in smaller health agencies, larger health units with board or district offices and cities with branch or district offices.

Qualifications: (*a*) The Certificate in Sanitary Inspection (Canada), plus five years' experience in environmental sanitation in a public health agency; *or* (*b*) One year's post-graduate training in public health plus two years' experience in environmental sanitation in a public health agency. A senior sanitary inspector having a Certificate in Public Health should receive $5,000 as a minimum salary.

Basic MINIMUM *Salary* $4,750 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

GROUP III

Duties: This group includes senior inspectors of large health agencies and regional or provincial supervisors of several health units.

Qualifications: (*a*) The Certificate in Sanitary Inspection (Canada), plus ten years' experience in environmental sanitation in a public health agency, at least two of which should have been in a supervisory or administrative capacity; *or* (*b*) One year's post-graduate training in public health, plus five years' experience in environmental sanitation in a public health agency, at least two of which should have been in a supervisory or administrative capacity. An inspector of this group having a Certificate in Public Health should receive $6,300.

Basic MINIMUM *Salary* $6,000 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

HEALTH EDUCATION PERSONNEL

There is a wide variation in the salary range as well as a wide range of responsibility and training required for the incumbents of these positions. In 1956 there were 24 positions reported but only 19 positions reported in 1959. There is a shortage of personnel in this field.

GROUP I

Duties: This group includes persons employed as health educators under supervision in a city department of health or a provincial division of health education designed to acquaint these people with the field and to determine whether they should, after a minimum of one year's and a maximum of three years' experience proceed to post-graduate training in health education.

Qualifications: Graduation from an approved university in arts, science, nursing, education, or social science with credit in the prerequisite subjects for admission to a

course in health education in a School of Hygiene. An additional year of postgraduate training in public health, in education, in public health nursing, or in social science is to be desired. Those who show an aptitude for health education can be selected from this group for postgraduate training in order to qualify them for advancement to other groups.

Basic MINIMUM *Salary* $4,000 plus an annual increment of at least $200 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

GROUP II

Duties: This group includes such positions as health educator in a health department or health unit. Duties should include responsibility for the health education programme.

Qualifications: Graduation in arts, science, nursing, education, or social science from an approved university, preferably with an additional year of postgraduate training in public health, in education, in public health nursing, or in social science, and a minimum of one year of postgraduate training in health education at an approved university leading to an M.P.H. degree or a C.P.H. with specialization in health education or the equivalent.

Basic MINIMUM *Salary* $5,000 plus an annual increment of at least $250 to a maximum salary comparable to that obtainable in positions with similar responsibility in private enterprise in the same region.

GROUP III

Duties: This group includes such positions as assistant to the director of health education in cities with population over 100,000 or at a provincial level.

Qualifications: In addition to the requirements of Group II, at least three years' experience under supervision in health education.

Basic MINIMUM *Salary* $6,000 plus an annual increment of at least $300 to a maximum salary comparable to that obtainable with similar responsibility in the same region.

GROUP IV

Duties: This group includes such positions as director of health education in cities with population over 100,000 or at a provincial level.

Qualifications: In addition to the requirements of Group II, at least five years' experience in a health education division of a public health agency, of which one year should have been in an administrative capacity.

Basic MINIMUM *Salary* $7,000 plus an annual increment of at least $350 to a maximum salary comparable to that obtainable in positions with similar responsibility in the same region.

APPENDIX A

TABLE I—Minimum and Maximum Salaries, **Public Health Physicians,** By Employment

Amount	*Federal and Provincial*		*Health Units*		*Cities*		*Total*	
	Min.	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*
$5001–5500	...	...	13	...	...	...	13	...
5501–6000	...	...	...	9	6	2	6	11
6001–6500	42	...	12	4	8	2	62	6
6501–7000	91	4	59	6	84	8	234	18
7001–7500	46	6	28	...	38	64	112	70
7501–8000	45	19	88	31	28	14	161	64
8001–8500	195	28	80	19	8	46	283	93
8501–9000	6	97	16	128	4	6	26	231
9001–9500	208	60	85	46	12	10	305	116
9501–10,000	6	50	34	26	16	16	56	92
10,001–12,000	198	292	40	154	26	42	264	488
12,001–14,000	71	307	6	30	8	26	85	363
14,001–16,000	16	54	...	8	4	2	20	64
16,001–18,000	...	6	...	...	2	4	2	10
18,001–20,000	2	3	...	...	...	2	2	5
20,001–22,000	2	2	...	...	...	...	2	2
Total	928	928	461	461	244	244	1,633	1,633

APPENDIX B

TABLE I—Minimum and Maximum Salaries, **Public Health Nursing Personnel,** By Type of Position

Amount	*A*		*B*		*C*		*Total*	
	Min.	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*
$2001–2100	3	...	...	...	...	...	3	...
2101–2200	...	...	...	...	...	...	...	...
2201–2300	...	...	...	...	...	...	...	...
2301–2400	...	...	...	...	...	...	...	...
2401–2500	5	3	...	...	...	...	5	3
2501–2600	6	...	...	...	...	...	6	...
2601–2700	1	...	18	...	...	...	19	...
2701–2800	325	8	150	9	...	...	475	17
2801–2900	26	5	66	...	...	...	92	5
2901–3000	1	2	15	10	...	...	16	12
3001–3100	74	28	8	4	...	...	82	32
3101–3200	73	41	17	84	...	...	90	125
3201–3300	38	...	145	13	...	...	183	13
3301–3400	203	3	182	20	19	...	404	23
3401–3500	241	296	71	150	10	...	322	446
3501–4000	41	199	806	222	103	27	950	448
4001–4500	1	378	119	702	75	67	195	1147
4501–5000	...	74	26	278	66	98	92	450
5001–5500	1	2	...	116	16	52	17	170
5501–6000	...	...	6	15	4	36	10	51
6001–6500	...	...	...	...	5	7	5	7
6501–7000	...	...	...	6	3	5	3	11
7001–8000	...	...	...	...	2	7	2	7
8001–9000	...	...	...	...	...	4	...	4
Total	1,039	1,039	1,629	1,629	303	303	2,971	2,971

A. Staff nurses *without* public health qualifications.
B. Staff nurses requiring public health qualifications.
C. Director, Supervisor and other senior positions requiring public health qualifications.

APPENDIX A

TABLE II—MINIMUM AND MAXIMUM SALARIES, **Public Health Physicians,** BY POSITION

Amount	*Deputy Ministers or Chief Provincial Health Officers*		*Assistant Deputy Ministers*		*Directors of Divisions, Provinces and Cities*		*Medical Officers of Health and Asst. Medical Officers of Health, Cities*		*Medical Officers of Health and Asst. Medical Officers of Health, Units*		*Positions Requiring Special Qualifications*		*Positions NOT Requiring Special Qualifications*		*Total*	
	Min.	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*
$5001–5500	...	...	...	...	...	...	...	...	13	...	...	...	...	...	13	...
5501–6000	...	...	...	...	...	...	...	...	...	9	...	...	6	2	6	11
6001–6500	...	...	...	...	...	...	2	2	12	4	2	...	46	...	62	6
6501–7000	...	...	...	...	...	...	20	6	59	6	64	...	91	6	234	18
7001–7500	...	...	...	...	...	...	6	...	58	...	6	...	42	70	112	70
7501–8000	...	...	...	...	14	...	6	...	89	41	...	...	52	23	161	64
8001–8500	...	...	1	1	17	4	4	18	32	40	82	20	147	10	283	93
8501–9000	...	...	...	...	4	4	4	2	12	75	...	52	6	98	26	231
9001–9500	...	...	...	...	27	8	12	4	20	46	120	...	126	58	305	116
9501–10,000	1	1	...	...	2	19	16	6	34	26	2	6	1	34	56	92
10,001–12,000	2	1	3	2	57	46	14	35	40	90	116	174	32	140	264	488
12,001–14,000	3	4	1	2	18	44	8	18	6	30	40	148	9	117	85	363
14,001–16,000	3	2	...	...	8	20	5	2	...	8	4	32	...	...	20	64
16,001–18,000	...	...	...	...	...	2	2	4	...	...	...	4	...	...	2	10
18,001–20,000	2	3	...	...	...	...	...	2	...	...	...	...	...	...	2	5
20,001–22,000	...	...	...	...	2	2	...	...	...	...	...	...	...	...	2	2
TOTAL	11	11	5	5	149	149	99	99	375	375	436	436	558	558	1633	1633

APPENDIX B

TABLE II—Minimum and Maximum Salaries, **Public Health Nursing Personnel** By Agency

Amount	*Federal and Provincial*		*Health Units and Districts*		*Cities*		*Total*	
	Min.	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*
$2001–2100	...	...	3	...	...	...	3	...
2101–2200	...	...	...	...	...	...	...	...
2201–2300	...	...	...	...	...	...	...	...
2301–2400	...	...	...	...	...	...	...	...
2401–2500	5	...	...	3	...	...	5	3
2501–2600	...	...	...	...	6	...	6	...
2601–2700	19	...	...	...	...	...	19	...
2701–2800	465	13	7	4	3	...	475	17
2801–2900	85	...	6	1	1	4	92	5
2901–3000	...	11	1	1	15	...	16	12
3001–3100	34	26	18	...	30	6	82	32
3101–3200	19	99	11	6	60	20	90	125
3201–3300	...	...	157	12	26	1	183	13
3301–3400	242	...	112	10	50	13	404	23
3401–3500	115	425	26	12	181	9	322	446
3501–4000	325	94	240	209	385	145	950	448
4001–4500	48	299	38	316	109	532	195	1,147
4501–5000	44	356	17	33	31	61	92	450
5001–5500	6	42	3	27	8	101	17	170
5501–6000	2	39	2	4	6	8	10	51
6001–6500	3	3	...	2	2	2	5	7
6501–7000	3	2	...	1	...	8	3	11
7001–8000	...	4	...	...	2	3	2	7
8001–9000	...	2	...	...	...	2	...	4
Total	1,415	1,415	641	641	915	915	2,971	2,971

APPENDIX C

TABLE I—Minimum and Maximum Salaries, **Graduate Engineers**

Amount	*Engineers*		*Assistant Engineers*	
	Minimum	*Maximum*	*Minimum*	*Maximum*
$4501–5000	...	...	10	...
5001–6000	2	...	11	7
6001–7000	16	3	16	17
7001–8000	9	15	6	9
8001–9000	8	7	1	8
9001–10,000	2	8	...	3
10,001–11,000	2	6	...	...
Total	39	39	44	44

APPENDIX D

TABLE I—MINIMUM AND MAXIMUM SALARIES, **Dentists,** EMPLOYED FULL-TIME BY PUBLIC HEALTH AGENCIES

Amount	*Directors of Division or Service*		*Assistant Dentists*	
	Minimum	*Maximum*	*Minimum*	*Maximum*
$5001–5500	1	...	11	...
5501–6000	1	...	4	11
6001–7000	6	1	33	6
7001–8000	9	9	33	26
8001–9000	7	5	17	37
9001–10,000	4	9	...	4
10,001–11,000	3	4	...	14
11,001–12,000	...	2	...	...
12,001–13,000	...	1	...	...
TOTAL	31	31	98	98

APPENDIX E

TABLE I—MINIMUM AND MAXIMUM SALARIES, **Public Health Laboratory Personnel**
Professional Staff

Amount	*Directors and Senior Bacteriologists, Serologists and Chemists*		*Assistant Bacteriologists, Serologists and Chemists*	
	Minimum	*Maximum*	*Minimum*	*Maximum*
$3001–3500	...	...	9	...
3501–4000	...	...	24	...
4001–4500	...	...	46	34
4501–5000	...	...	34	11
5001–6000	5	1	154	62
6001–7000	19	10	26	148
7001–8000	18	12	16	26
8001–9000	15	15	2	26
9001–10,000	10	19	...	4
10,001–11,000	4	9	...	...
11,001–12,000	7	6	...	...
12,001–13,000	1	4	...	...
13,001–14,000	...	2	...	...
14,001–15,000	...	1	...	...
TOTAL	79	79	311	311

APPENDIX E

TABLE II—MINIMUM AND MAXIMUM SALARIES,

Public Health Laboratory Personnel

Technical Staff

Amount	*Minimum*	*Maximum*
$1601–1800	3	...
1801–2000	11	...
2001–2200	54	...
2201–2400	22	5
2401–2600	88	9
2601–2800	67	21
2801–3000	...	32
3001–3200	68	48
3201–3400	74	1
3401–3600	6	84
3601–3800	41	98
3801–4000	23	...
4001–4500	22	90
4501–5000	12	62
5001–6000	15	55
6001–7000	...	1
TOTAL	506	506

APPENDIX F

TABLE I—MINIMUM AND MAXIMUM SALARIES,

Veterinarians

Amount	*Minimum*	*Maximum*
$3501–4000	74	...
4001–4500	...	...
4501–5000	5	75
5001–5500	33	4
5501–6000	13	10
6001–6500	2	23
6501–7000	4	10
7001–7500	2	5
7501–8000	2	3
8001–8500	3	2
8501–9000	...	2
9001–9500	...	1
9501–10,000	...	2
10,001–10,500	...	1
TOTAL	138	138

APPENDIX G

TABLE I—MINIMUM AND MAXIMUM SALARIES,

Public Health Statistical Personnel

Amount	*Minimum*	*Maximum*
$4001–4500	9	...
4501–5000	8	4
5001–5500	3	7
5501–6000	15	8
6001–6500	8	7
6501–7500	2	16
7501–8500	3	3
8501–9500	1	2
9501–10,000	...	1
10,001–11,000	...	1
11,001–12,000	1	...
12,001–13,000	...	1
TOTAL	50	50

APPENDIX H

TABLE I—MINIMUM AND MAXIMUM SALARIES,

Public Health Nutritionists

Amount	*Minimum*	*Maximum*
$3001–3500	13	...
3501–4000	16	2
4001–4500	13	19
4501–5000	4	15
5001–5500	8	6
5501–6000	1	9
6001–8000	...	4
TOTAL	55	55

APPENDIX I

TABLE I—MINIMUM AND MAXIMUM SALARIES, **Public Health Sanitary Inspectors**

Amount	*Chief Sanitary Inspector*		*Sanitary Inspectors*	
	Minimum	*Maximum*	*Minimum*	*Maximum*
$2401–2600	...	...	58	...
2601–2800	...	...	5	...
2801–3000	...	...	27	3
3001–3500	1	...	145	87
3501–4000	10	2	328	64
4001–4500	27	11	82	123
4501–5000	29	18	35	239
5001–5500	16	14	23	143
5501–6000	12	30	...	21
6001–6500	2	3	...	23
6501–7000	...	17	...	...
7001–7500	...	1	...	...
7501–8000	...	1	...	...
TOTAL	97	97	703	703

APPENDIX J

TABLE I—MINIMUM AND MAXIMUM SALARIES, **Public Health Educationists**

Amount	*Minimum*	*Maximum*
$3501–4000	3	...
4001–4500	4	3
4501–5000	1	...
5001–5500	2	4
5501–6000	6	4
6001–6500	2	...
6501–7000	1	4
7001–7500	...	2
7501–8000	...	1
8001–8500	...	1
TOTAL	19	19

NATIONAL IMMUNIZATION WEEK

September 18-24, 1960

As a contribution to programs of immunization in Canada the Health League of Canada introduced eighteen years ago a National Immunization Week. Its purpose is to make people more aware that they can prevent needless crippling and death from poliomyelitis, diphtheria, whooping cough, tetanus, and smallpox. There is continued need for educational campaigns and national publicity since many children and adults have not yet been immunized.

Program

ELEVENTH ANNUAL MEETING
OF THE
Ontario Public Health Association

KING EDWARD SHERATON HOTEL, TORONTO
OCTOBER 3, 4, 5, 1960

MONDAY, OCTOBER 3, 8.30 a.m.

8.30 a.m. Registration, Mezzanine Foyer

MONDAY, 9.30 a.m.

MINISTER'S CONFERENCE FOR MEDICAL OFFICERS OF HEALTH

Crystal Ballroom
(General Membership Welcome)
Presiding: W. G. BROWN, M.D., Deputy Minister of Health for Ontario.

9.30 a.m. **Address of Welcome.**
HON. MATTHEW B. DYMOND, M.D., Minister of Health for Ontario.

9.45 a.m. **Presentations by Staff of the Ontario Department of Health and Discussion Period.**

11.00 a.m. **A symposium on Cardiovascular Disease**
Presented by the Ontario Heart Foundation in Collaboration with the Ontario Department of Health.
The Problem of Cardiovascular Disease in Ontario
A. H. SELLERS, M.D., Director, Division of Medical Statistics, Ontario Department of Health.
Rheumatic Fever
J. D. KEITH, M.D., Physician-in-Charge, Department of Cardiology, Hospital for Sick Children, Toronto.

MONDAY, 12.30 p.m.

LUNCHEON

Sheraton Room

12.30 p.m. Presiding: MISS HELEN FASKEN, R.N., President, Ontario Public Health Association.
Address: The W.H.O.—The World's Most Successful International Organization.
G. D. W. CAMERON, M.D., Deputy Minister of National Health.

MONDAY, 2.00 p.m.

MINISTER'S CONFERENCE FOR MEDICAL OFFICERS OF HEALTH

Crystal Ballroom
(General Membership Welcome)
Presiding: W. G. BROWN, M.D., Deputy Minister of Health for Ontario.

2.00 p.m. **Symposium: Cardiovascular Disease**
Phonocardiography in the Diagnosis of Heart Disease
G. W. MANNING, M.D., Associate Professor, Department of Medicine, University of Western Ontario, London.
Vascular Surgery: Present Status and Future Trends
J. A. KEY, M.D., Associate, Department of Surgery, University of Toronto.
Diet and Cardiovascular Disease
J. M. R. BEVERIDGE, M.D., Professor of Biochemistry, Queen's University, Kingston.

MONDAY, 3.30 p.m.

HEALTH OFFICERS' SECTION

Crystal Ballroom

Presiding: R. A. KENNEDY, M.D., Medical Officer of Health, Ottawa.

3.30 p.m. **Section Business Meeting.**

MONDAY, 3.30 p.m.

PUBLIC HEALTH NURSING SECTION

Canadian Court

Presiding: MISS E. M. SCOTT, R.N., Director of Public Health Nursing, Department of Health, London.

3.30 p.m. **Section Business Meeting.**

MONDAY, 3.30 p.m.

ENVIRONMENTAL HYGIENE SECTION

Hunting Room

Presiding: D. E. PLUMMER, C.S.I.(C.), Chief Sanitary Inspector, Peel County Health Unit, Brampton.

3.30 p.m. **Section Business Meeting.**

MONDAY, 3.30 p.m.

DENTAL PUBLIC HEALTH SECTION

Room 216

Presiding: R. E. FEASBY, D.D.S., Dental Health Officer, Department of Health, Kingston.

3.30 p.m. **Section Business Meeting.**

MONDAY, 3.30 p.m.

VETERINARY PUBLIC HEALTH SECTION

Colonial Room

Presiding: D. R. MacDONALD, D.V.M., Veterinarian, Metropolitan Windsor Health Unit, Windsor.

3.30 p.m. **Section Business Meeting.**

MONDAY, 3.30 p.m.

PUBLIC HEALTH EDUCATION SECTION

Room 215

Presiding: W. F. J. ANDERSON, M.P.H., Executive Secretary, Metropolitan Toronto Branch, Canadian Mental Health Association.

3.30 p.m. **Section Business Meeting.**

MONDAY, 3.30 p.m.

PLUMBING INSPECTORS' SECTION

Elizabeth Room

Presiding: L. A. McCREESH, C.S.I.(C.), Senior Sanitary Inspector, Halton County Health Unit, Milton.

3.30 p.m. **Section Business Meeting.**

MONDAY, 4.30 p.m.

MEMBERSHIP COMMITTEE
ONTARIO PUBLIC HEALTH ASSOCIATION

President's Suite

MONDAY, 5.30 p.m.

NOMINATIONS AND RESOLUTIONS COMMITTEE
ONTARIO PUBLIC HEALTH ASSOCIATION

President's Suite

MONDAY, 7.30 p.m.

BOARD OF DIRECTORS
ONTARIO PUBLIC HEALTH ASSOCIATION

President's Suite

MONDAY, 8.00 p.m.

MEDICAL OFFICERS' SECTION

Fountain Court

8.00 p.m. **Reception and Social Hour.**

MONDAY, 8.00 p.m.

PUBLIC HEALTH NURSING SECTION

Elizabeth Room

8.00 p.m. **A Showing of Work-Centered Slides.**
Members of the Public Health Nursing Section are invited to bring any slides depicting their work which they think will be of interest to the group.

TUESDAY, OCTOBER 4, 8.30 a.m.

8.30 a.m. Registration, Mezzanine Foyer.

TUESDAY, 9.30 a.m.

FIRST GENERAL SESSION

Crystal Ballroom

9.30 a.m. Theme: **Programme Evaluation—Canada.**
Chairman: MILTON H. BROWN, M.D., Professor and Head of Department of Public Health, University of Toronto.
Participants:
G. D. W. CAMERON, M.D., Deputy Minister of National Health.
W. G. BROWN, M.D., Deputy Minister of Health for Ontario.
C. W. SCHWENGER, M.D., Assistant Medical Officer of Health, East York–Leaside Health Unit, Toronto.

TUESDAY, 11.30 a.m.

ANNUAL MEETING
OF THE ONTARIO PUBLIC HEALTH ASSOCIATION

Crystal Ballroom

TUESDAY, 2.00 p.m.

JOINT SECTION MEETING "A"

(Health Officers', Public Health Nursing, Health Education and Dental Public Health Sections)
Crystal Ballroom
Presiding: R. A. KENNEDY, M.D., Medical Officer of Health, Ottawa.
Theme: **Spending Our Time Wisely in Maternal and Child Health.**

2.00 p.m. **Maternal and Child Health Services—Ontario, 1958.**
G. K. MARTIN, M.D., Director, Maternal and Child Health Branch, Ontario Department of Health.

2.45 p.m. **The Public Health Nurse Looks at the Maternal and Child Health Programme.**
H. M. CARPENTER, R.N., Assistant Professor, School of Nursing, University of Toronto.

3.30 p.m. **Evaluating a Dental Programme.**
RALPH CONNOR, D.D.S., Director of Dental Services, Department of Health and Public Welfare, Manitoba.

TUESDAY, 2.00 p.m.

VETERINARY PUBLIC HEALTH SECTION

Room 216
Presiding: O. C. RAYMOND, D.V.M., Director, Division of Food Control and Sanitation, Brant County Health Unit, Brantford.

2.00 p.m. **The Medical Officer's Conception of a Director of Food Control and Sanitation.**
A. R. J. BOYD, M.D., Medical Officer of Health, Toronto.

2.30 p.m. **Virus Diseases of Animals That Have Special Health Public Significance.**
N. A. LABZOFFSKY, D.V.Sc., Virus Diagnostic Unit, Central Laboratory, Ontario Department of Health.

3.00 p.m. **Panel Discussion: Meat Inspection—Present and Future.**
Participants:
G. A. EDGE, D.V.M., Chief Public Health Veterinarian, Ontario Department of Health.
D. R. MacDONALD, D.V.M., Veterinarian, Metropolitan Windsor Health Unit, Windsor.
T. R. MILADY, D.V.M., Public Health Veterinarian, Huron County Health Unit, Goderich.

TUESDAY, 2.00 p.m.

JOINT SECTION MEETING "B"

(Environmental Hygiene and Plumbing Inspectors' Sections)
Mayfair Room
Presiding: D. E. PLUMMER, C.S.I (C.), Chief Sanitary Inspector, Peel County Health Unit, Brampton.

2.00 p.m. **Public Health Legislation.**
A. S. O'HARA, F.R.S.H., Environmental Sanitation Branch, Ontario Department of Health.

3.00 p.m. **Panel Discussion: Programme Evaluation from the Viewpoint of the Sanitary Inspector.**
Chairman: JOHN ROBSON, C.S.I.(C.), Chief Sanitary Inspector, Ontario County Health Unit, Pickering.
Participants:
J. A. POWELL, C.S.I.(C.), Chief Sanitary Inspector, Halton County Health Unit, Milton.
J. D. FINLAYSON, C.S.I.(C.), Chief Sanitary Inspector, Northumber–Durham Health Unit, Cobourg.
D. A. FEENY, C.S.I.(C.), Scarborough Township Health Department.
WALTER BLACKSTOCK, C.S.I.(C.), Simcoe Health County Unit, Barrie.
K. E. WELLS, C.S.I.(C.), Hamilton Health Department.
General Discussion.

TUESDAY, 6.30 p.m.

PRESIDENT'S RECEPTION

Reception Room

TUESDAY, 7.30 p.m.

ANNUAL DINNER AND PRESENTATION OF HONOURS

Crystal Ballroom
Presiding: HELEN FASKEN, R.N., President, Ontario Public Health Association.
Address: ANDREW C. FLECK, Jr., M.D., L.L.B., Evaluation Consultant, New York State Health Department, Albany.

WEDNESDAY, OCTOBER 5, 9.30 a.m.

HEALTH OFFICERS' SECTION MEETING

Hunting Room
Presiding: G. L. ANDERSON, M.D., Medical Officer of Health, Lambton Health Unit, Sarnia.

9.30 a.m. **Panel Discussion: The Medical Officer Looks at His Job.**
Participants:
JOHN HOWIE, M.D., Medical Officer of Health, Metropolitan Windsor Health Unit, Windsor.
W. HARDING LE RICHE, M.D., Professor of Public Health, School of Hygiene, University of Toronto.

11.20 a.m. **Panel Discussion: Are We Adequately Supervising Patients Following Sanatorium Discharge?**
Moderator:
J. B. COOK, M.D., Medical Officer of Health, Sudbury and District Health Unit, Sudbury.
Participants:
H. L. McCLINTOCK, M.D., Medical Director, Gage Institute, Toronto.
C. G. SHAVER, M.D., Superintendent, Niagara Peninsula Sanatorium, St. Catharines.

C. C. STEWART, M.D., Medical Officer of Health, Oshawa.
S. A. HOLLING, M.D., Director, Tuberculosis Prevention Branch, Ontario Department of Health.

WEDNESDAY, 9.30 a.m.

PUBLIC HEALTH NURSING SECTION

Sheraton Room

Presiding: E. M. SCOTT, R.N., Director of Public Health Nursing, Department of Health, London.

9.30 a.m. **Panel: The Role of the Public Health Nurse in Recruitment.**
Chairman: CAROL ADAMS, R.N., Nursing Consultant, Education and Service, Registered Nurses Association of Ontario.
Participants:
DORIS CARTER, R.N., Senior Nurse, Secondary Schools, Collegiate Board, Ottawa.
PATRICIA R. DETENBECK, B.A., Inspector of Guidance Services, Ontario Department of Education.
A High School Student.
A Recent Graduate Nurse.

11.00 a.m. **Panel: A Look at Our Own Performance.**
Demonstration of the Use of a Tape Recorder in a Nursing Study.
Chairman: H. M. CARPENTER, R.N., Assistant Professor, School of Nursing, University of Toronto.
Members: Staff of the East York–Leaside Health Unit.

WEDNESDAY, 9.30 a.m.

JOINT SECTION MEETING "C"

(Environmental Hygiene and Veterinary Public Health Sections)

Mayfair Room

Presiding: O. C. RAYMOND, D.V.M., Director, Division of Food Control and Sanitation, Brant County Health Unit, Brantford.
JOHN ROBSON, C.S.I.(C.), Chief Sanitary Inspector, Ontario County Health Unit, Pickering.

9.30 a.m. **Recent Developments in the Milk Industry.**
F. RUSHTON, D.V.M., Supervising Public Health Veterinarian, Ontario Department of Health.

10.15 a.m. **The Resistance of Viruses to Physical and Chemical Control Measures.**
DONALD M. McLEAN, M.D., Virologist, The Hospital for Sick Children, Toronto.

WEDNESDAY, 9.30 a.m.

DENTAL PUBLIC HEALTH SECTION

Room 216

9.30 a.m. **The Caries Rating Computer in Public Health.**
R. M. GRAINGER, D.D.S., Associate Professor, Research Division, Faculty of Dentistry, University of Toronto.

WEDNESDAY, 2.00 p.m.

SECOND GENERAL SESSION

Sheraton Room

2.00 p.m. **Theme: Programme Evaluation—United States.**
Chairman: A. V. HALL, D.V.M., Veterinarian, Department of Health, London.
Participants:
ANDREW C. FLECK, Jr., M.D., L.L.B., Evaluation Consultant, New York State Health Department, Albany—
—Programme Evaluation Studies in New York State.
ALBERT E. HEUSTIS, M.D., State Health Commissioner, Michigan.
—Michigan – The State of Local Health.

Association News

New Brunswick—Prince Edward Island Branch

The Branch held its annual meeting in Halifax on June 1, 1960, in conjunction with the fiftieth annual meeting of the Canadian Public Health Association. The following officers were elected: President, Dr. B. J. O'Meara, Charlottetown; First Vice-President, Miss Muriel Hunter, Director of Public Health Nurses for New Brunswick, Fredericton; Second Vice-President, Mr. Aldor LeBlanc, sanitary inspector, Moncton; Secretary-Treasurer, Miss Ray McKenzie, public health nurse, 400 Collishaw St., Moncton. These officers, with the following additional members, compose the executive: Dr. R. D. Landry (Past President), Moncton; Mr. John McAleer, Charlottetown; Dr. B. D. Howatt, Charlottetown.

Certificate in Sanitary Inspection (Canada)

The following candidates, all of Ontario, have been granted the Certificate in Sanitary Inspection (Canada) of the Canadian Public Health Association: Clive Beardwood, *Hillsburgh*; Walter S. Blackstock, *Thornton*; Peter John Boban, *Port Arthur*; Brian Chernoff, *West Hill*; L. Crawford, *Toronto*; Joseph P. Crossman, *Peterborough*; Malcolm M. Garbutt, *Brampton*; Milan Michael Holy, *Islington*; Jurij G. Kurys, *Cornwall*; Maynard Aubrey MacDonald, *Hamilton*; W. Samuel McGee, *Canfield*; Raymond McLean, *Toronto*; Douglas Neil Pattullo, *Georgetown*; Robert F. Rowe, *Toronto*; Mitchell Frank Serafin, *Toronto*; Peter Serkowney, *Toronto*; Francis A. Spadoni, *Hamilton*; William S. Straughan, *Barrie*; Murray D. A. Wilson, *Toronto*; Murray Charles Wood, *Toronto*; Grant Alan Yarrow, *Niagara Falls*.

News Notes

International

The Eighth World Congress, International Society for the Welfare of Cripples will be held at the Hotel Waldorf-Astoria, New York, August 28–September 2, 1960. The Congress will be attended by more than 5000 members representing more than 70 countries. In addition to four days of scientific presentations, the program will depict new rehabilitation techniques, equipment and progress through 125 exhibits.

Federal

The next Canadian census will be taken in 1961. The first Canadian census was in 1666, when 3,250 persons were recorded. More than 18,000,000 persons are expected to be enrolled in the next census. Publishing of the results in 1951 took three years. The results of the 1961 census will be published within a period of months, through the use of electronic devices developed by the Dominion Bureau of Statistics and other experts.

The twelfth annual conference of the Institure of Public Administration of Canada will be held at the Banff School of Fine Arts, Banff, Alberta, September 14–17.

Mr. John E. Osborne, Dip. H.A. has been appointed as consultant in the Health Insurance Administration of the Department of National Health and Welfare.

Dr. A. K. DasGupta, nuclear chemist, recently of the McMaster University Reactor Group, has been appointed to the Radioisotope Supervision Section of the Radiation Protection Division of the Department of National Health and Welfare.

As a result of increased responsibilities, the Research Development and International Health Section of the Directorate of Health Services has been divided with Dr. L. B. Pett being appointed as Principal Medical Officer of Research Development and Dr. B. D. B. Layton continuing as Principal Medical Officer of International Health.

The following physicians qualified recently as specialists in public health in the Royal College of Physicians and Surgeons of

Canada: K. I. Benson, Prince George, B.C.; Robert Bradley, Swift Current, Sask.; George Alexander Gibson, Cranbrook, B.C.; Frank Irvin Jackson, Regina, Sask; Henry K. Kennedy, Cloverdale, B.C.; George D. M. Kettyls, Chilliwack, B.C.; Nikolaus Schmitt, Nanaimo, B.C.

Nova Scotia

Miss Lorna Seaman, B.Sc., Mount Allison University, has recently joined the staff of the Division of Nutrition. Miss Seaman is planning to take the course leading to the Diploma in Nutrition at the School of Hygiene, University of Toronto.

Miss Phyllis Dickie, acting supervisor of the Lunenburg-Queens Healt Unit has resigned. She is planning to take post-graduate work in midwifery in London, England.

New Brunswick

Dr. Arnold Branch, Chief of Laboratory Service, Lancaster Hospital, Saint John, has been appointed to the WHO Expert Advisory Panel on Antibiotics for a period of five years.

Dr. E. O'Rafferty has resumed his duties as district medical health officer after having taken post-graduate training at the School of Hygiene, University of Toronto.

The Hon. Dr. J. F. McInerney, Minister of Health and Social Services, presented certificates to 29 successful candidates in the first course on child care organized by the New Brunswick Branch of the Canadian Red Cross Society. Those taking the course were teenagers from the Saint John area, aged fourteen and over.

Quebec

A grant of $28,600 has been made to the School of Hygiene, University of Montreal, to assist in the development of an institute for research into industrial health and air pollution problems. The services of personnel of the university staff and specialized consultants in these fields will be utilized. The project will extend over a period of three years.

Ontario

The property of the Muskoka Sanatorium at Gravenhurst owned by the National Sanatorium Association has been purchased by the Ontario Government. The Hon. Dr. M. B. Dymond, Minister of Health, has announced that the hospital will be used to accommodate 300 children from the Ontario Hospital School, Orillia.

Dr. F. I. Jackson has been appointed assistant medical officer of health at Etobicoke. Dr. Jackson came to Canada two years ago from Capetown, South Africa and has been assistant medical officer of health of the Regina Rural Health Region.

Major A. S. O'Hara, Toronto, has been appointed honorary correspondent for Canada by the Royal Society of Health; a Fellow of the Society, he was a recent visitor to Great Britain where he addressed the Society's Congress at Torquay.

Manitoba

Health benefits to those receiving Social Allowance in the province of Manitoba will be much greater in scope than in the past. Families receiving Social Allowance will be given a medicare card which entitles them to the services of a doctor of their own choice for home and office calls. The arrangements for these services have been made possible through the co-operation of the Manitoba Medical Association. The family will also receive essential dental care including extractions, fillings, and dentures. Optical services and/or eye glasses will also be provided as well as essential drugs. A list of essential drugs has been prepared, in co-operation with the Manitoba Medical Association, for distribution to the medical profession and druggists, which outlines the types of prescription drugs covered under the program. This does not, however, include patent or trade mark medicines.

Director of the Bureau of Food Control for the province, Grant McLeod, was chairman of the Conference Committee for the Canadian Institute of Food Technology, held June 9 and 10 in Winnipeg. One of the luncheon speakers was Dr. E. C. Chamberlayne, veterinary public health adviser with the Pan American Health Organization, formerly director of the Bureau of Food Control for the Manitoba Department of Health and Public Welfare.

Saskatchewan

Dr. F. Burns Roth, Deputy Minister of the Saskatchewan Department of Public Health, has accepted a second five-year term as a member of the expert advisory panel on organization of medical care of the World Health Organization.

Dr. Stanley C. Best, director of child health for the Department of Public Health, was recently elected president of the Canadian Paediatric Society.

Since June 1959 the health regions have conducted hundreds of free polio immunization clinics to give adults up to age forty fourth doses of polio vaccine and also first, second and third doses to those who have not been vaccinated previously. Booster doses of polio vaccine or quadrigen are

routinely given throughout the year to children in child health centers and in school clinics.

More than 9,000 school children in the Blaine Lake, Tisdale, Kinistino, and Melfort school units were tested for hearing ability during May and June through a joint undertaking by the departments of health and education. The testing program will continue in September.

Saskatchewan observed its seventh annual Farm Safety Week, sponsored by the Department of Public Health, in the last full week of July. In view of the fact that farm-work fatalities have decreased steadily in the past seven years, special emphasis is being given farm-home and off-the-farm accidents where no comparable decreases have been experienced.

A unique annual report covering the period 1959–60 has been issued by the Prince Albert Health Region. Information on all public health activities in the year was given in a newspaper supplement of the Prince Albert Daily Herald. Additional copies were purchased for reading by the residents of the unit who do not receive the Herald.

The Saskatchewan Department of Public Health is continuing and extending its fluoride tablet program for the coming year. Funds have been made available whereby these tablets will be supplied free to the preschool age group in rural regions as well as to expectant mothers. The initial program in which the fluoride tablets were supplied to expectant mothers exceeded all expectations. This dental health program will be introduced at child health clinics and will be accompanied by additional dental health education. Accelerated programs in dental hygiene and nutrition coupled with the use of fluoride tablets in the prenatal and preschool period if effectively combined are expected to contribute greatly to the prevention of dental decay.

British Columbia

A child health program at the University of British Columbia was started in 1959 as a three year demonstration project, with financial support from federal health grants and the University. It was designed primarily as a complete well-child care service to serve the student families of the University. It was planned and organized by the departments of preventive medicine and paediatrics. Essentially a teaching program it offers an intensive service to each family, but there is also emphasis on research. One area presently being explored is that of childhood accident prevention. An intensive study is being made of pedestrian traffic accidents involving children with a view to making definite safety recommendations. The project is under the direction of a public health physician but will draw in many departments in the University and groups in the community.

The rheumatic fever prophylaxis program has been in operation since June 1959 in four of the province's sixteen rural health units. The total number of patients now in the plan is 131, representing an average of approximately 1 patient per 2,000 population in the pilot areas. With funds and supplies available to carry about 400 patients, directors of other health units are discussing with their local medical societies the possibilities of extending the program. As at the outset of the plan, an important proviso is the requirement that sufficient nursing time be made available for the necessary minimum number of visits to the children's homes.

The Deputy Minister of Mental Health Services and a part of his administrative staff have now moved from Essondale to their new offices in the Provincial Health Building at 828 West 10th Avenue in Vancouver. In addition to Dr. A. E. Davidson, the Deputy, the group includes the administrative assistant, Mr. C. B. Watson; business manager, Mr. F. A. Matheson; director of nursing services, Miss B. Mitchell; personnel officer, Mr. J. Dowling and the provincial supervisor of psychiatric social work, Miss A. K. Carroll.

In an attempt to evaluate the anticariogenic effect of topical applications of stannous fluoride, the Greater Victoria School Dental Service has commenced a research project with 6- and 7-year-old children. In all, some 420 Grade 1 students are involved, and the study will continue to the end of the school year. Children are divided into three categories; a control group, a group receiving a single application of 8% stannous fluoride solution, and a third group being given two successive applications of the 8% stannous fluoride solution on two successive days. Students chosen for the project had been reported by their family dentist or school dental officer as having all restorative dentistry completed. All children are to be reexamined during the following school year, and it is anticipated that tabulation and analysis of the results will be available before the end of 1961.

The Quesnel office of the Cariboo Health Unit is now located in the new health building, named the Eileen Ramsay Memorial Health Centre in honour of the late Mrs. Ramsay, public health nurse at Quesnel for many years.

Books and Reports

FOODS WITHOUT FADS. *A Common Sense Guide to Nutrition. E. W. McHenry, Ph.D., J. B. Lippincott Company, Philadelphia, 1960, 159 pp., $3.50.*

Dr. E. W. McHenry, Professor of Nutrition and Head of the Department of Nutrition, School of Hygiene, University of Toronto, needs no introduction to Canadian readers. A previous volume, *Basic Nutrition* published in 1957, has already an established place in nutrition literature. The author points out that one of the major problems in the modern world is to provide scientific information in a clear form that can be understood by persons without scientific training. The closing words of the book "Good food selection means good meals. Good meals are worth eating" summarize succinctly the author's message. The book is a common-sense guide to nutrition, presented in a most readable manner and with commendable brevity. The need for such a publication has been felt by physicians, public health educationists and all concerned with the promotion of health.

CARTER'S MICROBIOLOGY AND PATHOLOGY. *Alice Lorraine Smith, A.B., M.D., C.V., Mosby Company, St. Louis, Mo., 1960, 742 pp., 316 illustrations, $7.50.*

In the preface to the first edition, the author, Charles F. Carter, M.D., stated that the book was an outgrowth of "Bacteriology for Nurses" written by him in 1928. In the new book he combined microbiology with pathology. It has now an established place as a textbook in schools of nursing and in the instruction of other student groups. Dr. Alice L. Smith was associated with Dr. Carter and the seventh edition continues its presentation in two sections. One section deals with general principles of microbiology and the other with pathology—general principles and special pathology of the major organ systems. Descriptions are made of the most important disease-producing microbes and the reactions are discussed of the living cells to tissues in contact with such micro-organisms. Practical applications are given in the fields of medicine, nursing, and public health. This is a very readable volume, profusely illustrated and attractively printed. A series of questions for review is included at the end of each chapter. The seventh edition is the result of more than thirty years of continuous compilation and editing.

THE CHILD IN HOSPITAL, *A Study of His Emotional and Social Well-being. Hedley G. Dimock, Macmillan Co. of Canada, Ltd., Toronto, 1959, 236 pp., $3.75.*

The author has been remarkably successful in defining and analysing in simple, non-technical terms, the child's personality needs as they exist before, during, and following hospitalization. Techniques by which parents and hospital personnel can participate more intelligently in need-fulfillment are illustrated through a number of short case studies and commentaries on the situations outlined in the studies.

Parents should find the sections on preparing the child for hospital and on his life in hospital most informative and helpful. Nurses and physicians and all personnel who perform paediatric services ought to benefit considerably from this treatment of the problems that concern the hospitalized child.

The educational and recreational elements of the child's life in hospital are considered as they affect his adjustment to his new (and perhaps frightening) environment. Also considered is the role of the guidance specialist—psychiatrist, psychologist, and psychiatric social worker, in assisting paediatric personnel to perform "whole child" care. The study is concluded by a review of administrative and educational measures designed to advance mental health among hospital personnel.